TWO NEW ACACIAS OF ZULULAND.

By Rev. J. Gerstner, Ph.D., O.S.B.

Acacia grandicornuta Gerstner, species nova, Acaciae robustae, Burch. affinis. *Arbor* circiter viginti pedibus alta, forma tamquam pirus. *Cortex* canus, fissis multis directe ad perpendiculum praeditus. *Truncus* circa 30 cm. diam. *Ramuli* striati et verrucosi. *Stipulae* spinescentes. *Spinae* directae, albidae, 0·2—1·1 × 0·5—15 cm., nonnumquam basi confluentes. *Folia* circ. 4 × 7 cm., foliola vel pinae 1—4 paribus, pinnulae 8—15 paribus 1·5—2 × 5—8 mm., oblongae, apice et basi rotundatae, minutissime pubescentes supra subterque non solum in statu florenti sed etiam frugifero. Inter par pinnarum ultimarum semper, inter par pinnarum proximarum nonnumquam sunt glandulae, velut catilli. *Flores* 4—12 in fasciculo axillari globosi. *Capita* 6—8 mm. diam. minora capitibus Acaciae robustae (10—15 cm. diam.) colore lacteo. *Flosculi* calice et corolla glabra lobataque. *Filamenta* circiter 50 elongata, lactea. *Pollinia* ovalia basi apiceque cordato sunt lutea. Legumen fuscum, falcatum, circa 12 venis conspicuis longitudinalibus reticulatum, simile legumini Acaciae robustae sed gracilius 8 × 80 mm. Legumen Acaciae robustae collectum in eodem loco 16 × 120 mm. Semina 7 × 12 mm., 3—5 in legumine pulla et ovata.

Hab. Natal and Zululand : Flowered 6.1.36 at Emkunzana and Mkuzi Drift between Nongoma and Magut, Gerstner 2870. Fruits found at the same places and at the lower Pongola 13.5.36.

"*Acacia grandicornuta* Gerstner" is named in accordance with the Zulu name, "umZingampondo," which means "sight of horns." In shape it closely resembles a Pear tree and is closely related to *Acacia robusta*, Burch., which is called in Zulu "umNgamanzi." The latter has a denser foliage and is more umbrella or, rather, Apple-tree-shaped. *Acacia robusta* grows, as the Zulu name indicates ("the umuNga of the water," umuNga being the name for *Acacia karroo* and *Acacia natalitia*) always near the water, whereas *Acacia grandicornuta* being more xerophilous, is found some distance from water on hills of dry bushveld. The white spines are 0·2—1·1 × 0·5—15 cm.

Primary leaves about 4 × 7 cm. are sometimes amalgamated with the bases of the spines, if the latter are fused and inflated (cf. Fig. 1 B). The secondary leaves which are of similar size, originate as spurs or fascicles of 3—5 leaves from prominent cushions in the axils of the

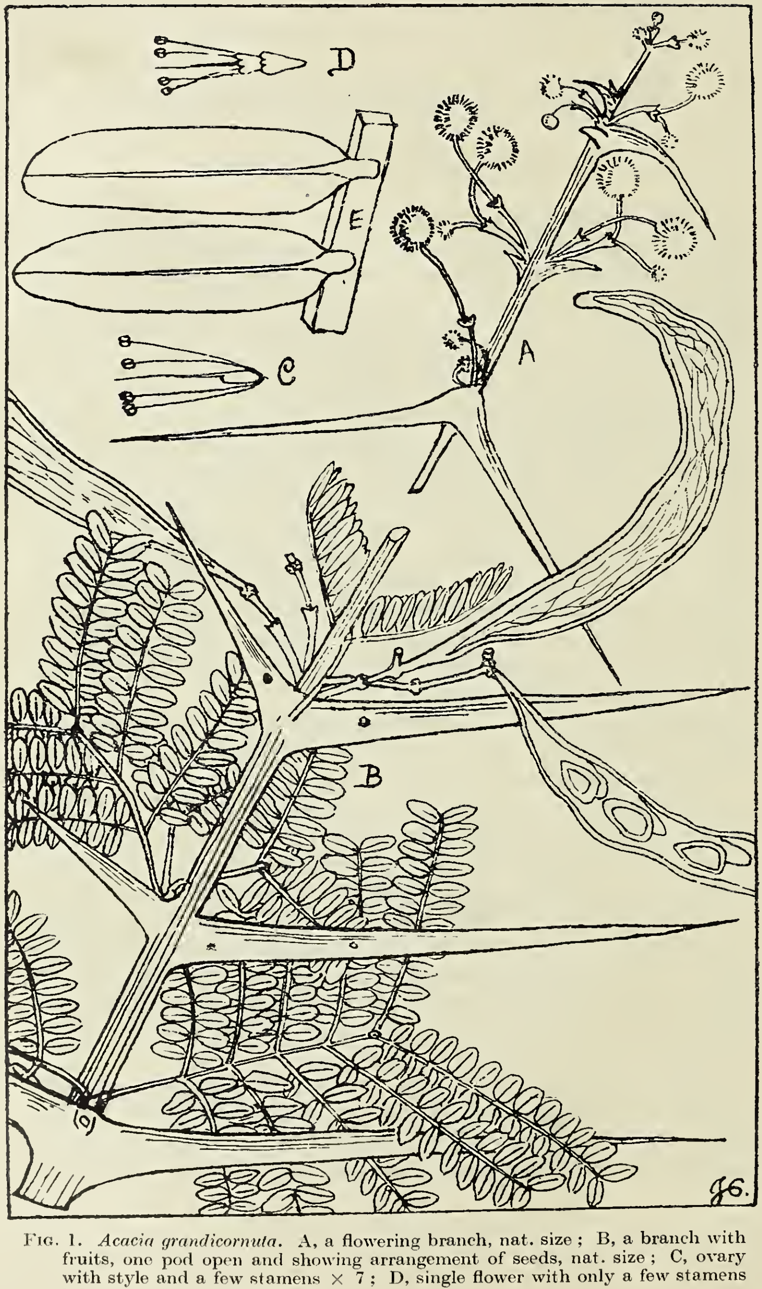

FIG. 1. *Acacia grandicornuta.* A, a flowering branch, nat. size; B, a branch with fruits, one pod open and showing arrangement of seeds, nat. size; C, ovary with style and a few stamens × 7; D, single flower with only a few stamens left × 7; E, two pinnules × 7.

primary leaves. The petiole in flowering state is about 10 mm. and, in fruiting state, about 18 mm. long. The pinnae-spacing is at first 6—8, later on 8—10 mm. Rhachis 3—4 mm. long with 1—4, usually 3 pairs of pinnae. Apical pair, sometimes the next ones, with interpetiolar saucer-shaped gland between. Rhachilla with 8—15 pairs of pinnules. Pinnules oblong 1·5—2 × 5—8 mm. (cf. Fig. 1. E × 6), minutely puberulent *on both sides.* In the latter characteristic it is unlike *Acacia robusta,* which is only puberulent in the early flowering stages and later on becomes glabrous and even glossy above. Lateral veins of pinnules mostly wanting, sometimes 2—4.

Inflorescences are 4—12-fasciculate, globose, creamy-white flower-heads of 6—8 mm. diam. and replacing partially or totally the secondary leaves of the axillary spurs, which originate from prominent cushions. Involucel more or less at the middle of the slender, glabrous peduncle (cf. Fig. 1 A.). Calyx and corolla are whitish and glabrous outside. The stamens (about 50) are whitish-cream ; the anthers pale yellow (cf. Fig. 1 C and D × 7). The brown subwoody, falcate legume is 8 × 80 mm. and therefore more slender than that of *Acacia robusta*, the pods of which are usually 16 × 120 mm. On each side of the pod a bundle of about a dozen conspicuous nerves start at the cuneate base and end in the bill-like apex ; they diverge and fuse again at distances of 5—10 mm. thus forming a longitudinally directed network of veins. The seeds, 3—5, circ. 7 × 12 mm. are glabrous, blackish brown and ovate.

Acacia barbertonensis Schweickerdt.

This species has been recently described (in Kew Bull. 1937 p. 445) by Dr. H. G. Schweickerdt from the Barberton District of the Transvaal and from the Inkuzane River in Zululand. I have also collected it in Zululand at Mkuzi Drift (9th Jan. 1936, and in fruit 15th March 1936 : Gerstner 2871), and have found it also at the lower Ntambanana River near the Umhlatuze.

The Zulus call this Acacia "uBibi" and "uSagu." The latter name is used for the nearly-related Acacia Natalitia as well.

Acacia barbertonensis is usually a multi-branched shrub, doing well in very dry and hot bushveld of northern Zululand. All the branches, leaves and even fruits are covered above and below with numerous little glands, which make the whole shrub glutinous like *Acacia glandulifera.* It differs from the latter by the much smaller leaves and the pods which are similar to those of *Acacia Natalitia.* The branches are ribbed. Pure vegetative twigs have secondary leaves in fascicles or spurs. The very slender spines are white and 1·1—1·5 × 5—35 mm. The leaves are circa 30 × 60 mm. The petiole is about 7—10 mm. long. The pinnae-

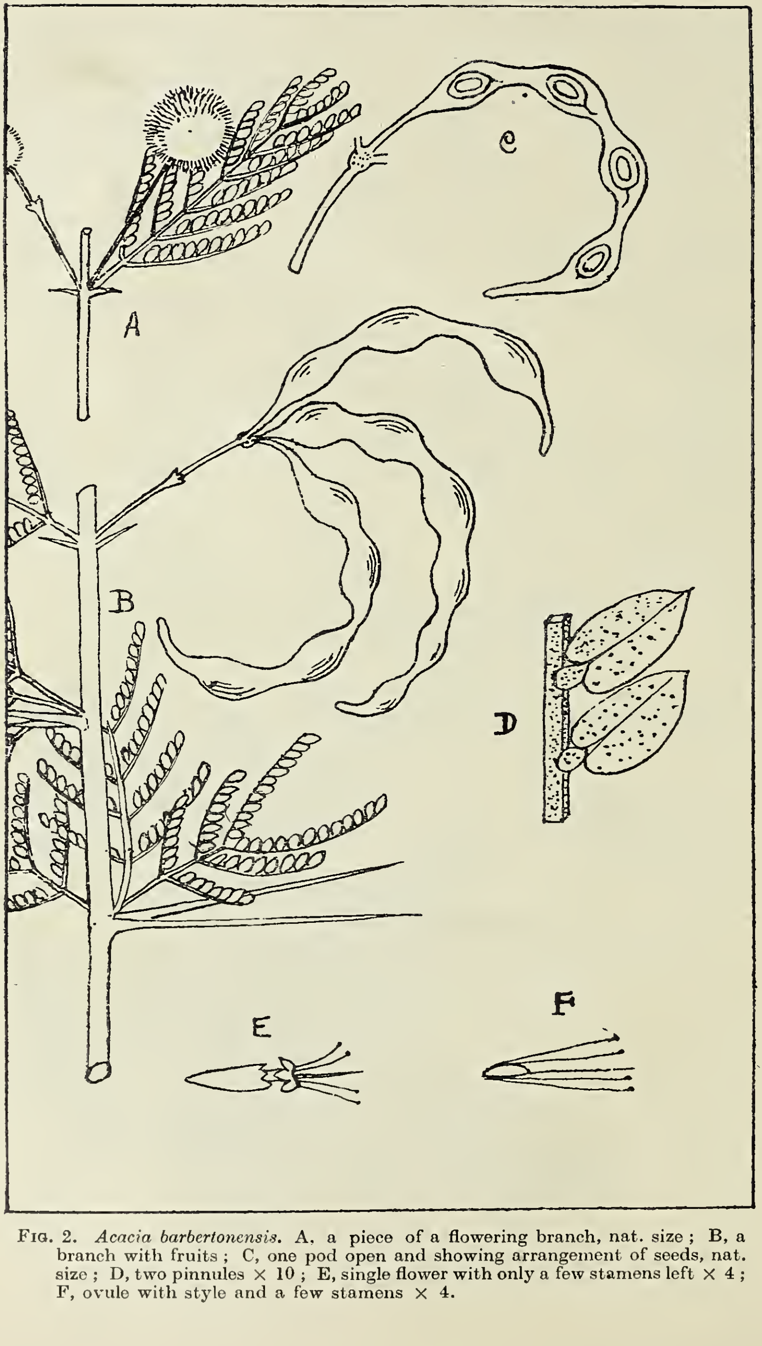

FIG. 2. *Acacia barbertonensis.* A, a piece of a flowering branch, nat. size; B, a branch with fruits; C, one pod open and showing arrangement of seeds, nat. size; D, two pinnules × 10; E, single flower with only a few stamens left × 4; F, ovule with style and a few stamens × 4.

spacing is 3—7 mm. The rhachis is polygonal and has 1—8, usually 6 pairs of pinnules. The rhachilla of the pinnules is quadrangular and has 8—12 pairs of cordate pinnules (cf. Fig. 2 B & D), 0·75—1·5 × 1·3—3 mm.

The deep yellow, globose, flower heads, 12—15 mm. diam. are arranged similarly to those of *Acacia Natalitia*, being collected at the ends of the branchlets into panicles mixed with leaves : as there are usually only two flowers in an axil, the inflorescence is not as dense as in the case of *Acacia Natalitia*. The glutinous involucel is more or less at the middle of the slender and viscid peduncle (cf. Fig. 2 A). The whitish calyx and the yellow corolla are glabrous and lobate. The numerous (about 50) stamens and anthers are also yellow, the oblique ovary green (cf. Fig. 2 E. & F.). The reddish brown, nervose glutinous pod is about 80 mm. long, the width of the slender, torulose legume varying from 2—6 mm. (cf. Fig. 2 B.). The 4—6 seeds of a pod are oval, 3·5 × 5 mm. and greenish grey (cf. Fig. 2 C.). Dr. J. S. Henkel is describing perhaps this species partially in his book " The Woody Plants of Natal and Zululand " as a possible hybrid between *Acacia karroo* Hayne and *Acacia glandulifera* Schinz. But as *Acacia barbertonensis* occurs at the Umhlatuze, i.e. about a hundred miles away, where I found the next *Acacia glandulifera*, it cannot be a mere local hybrid (cf. Henkel p. 229). Dr. Schweickerdt also doubts Dr. Henkel's suggestion in the absence of definite evidence, and believes that *A. barbertonensis* is specifically distinct.